

Fig. 1a

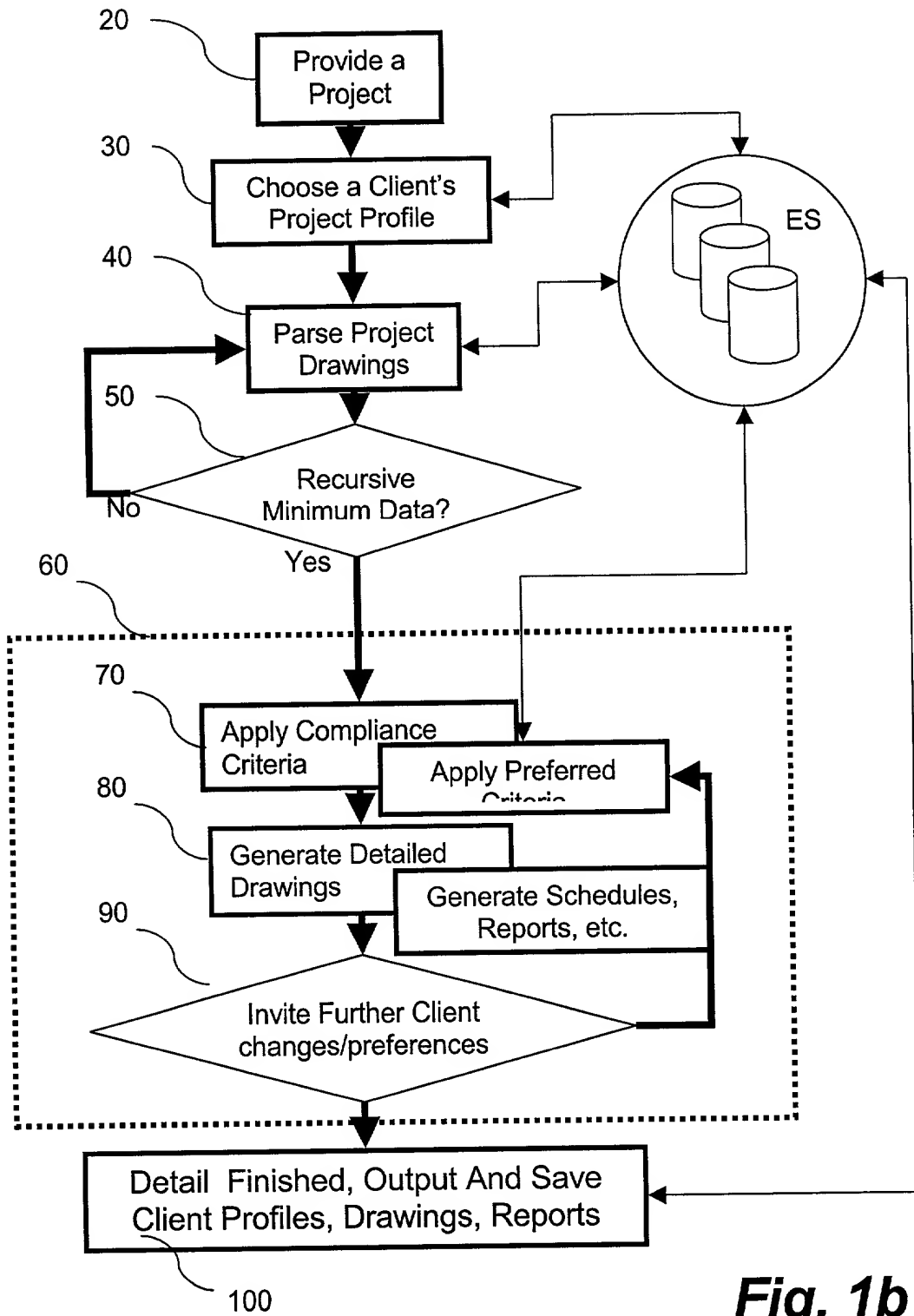


Fig. 1b

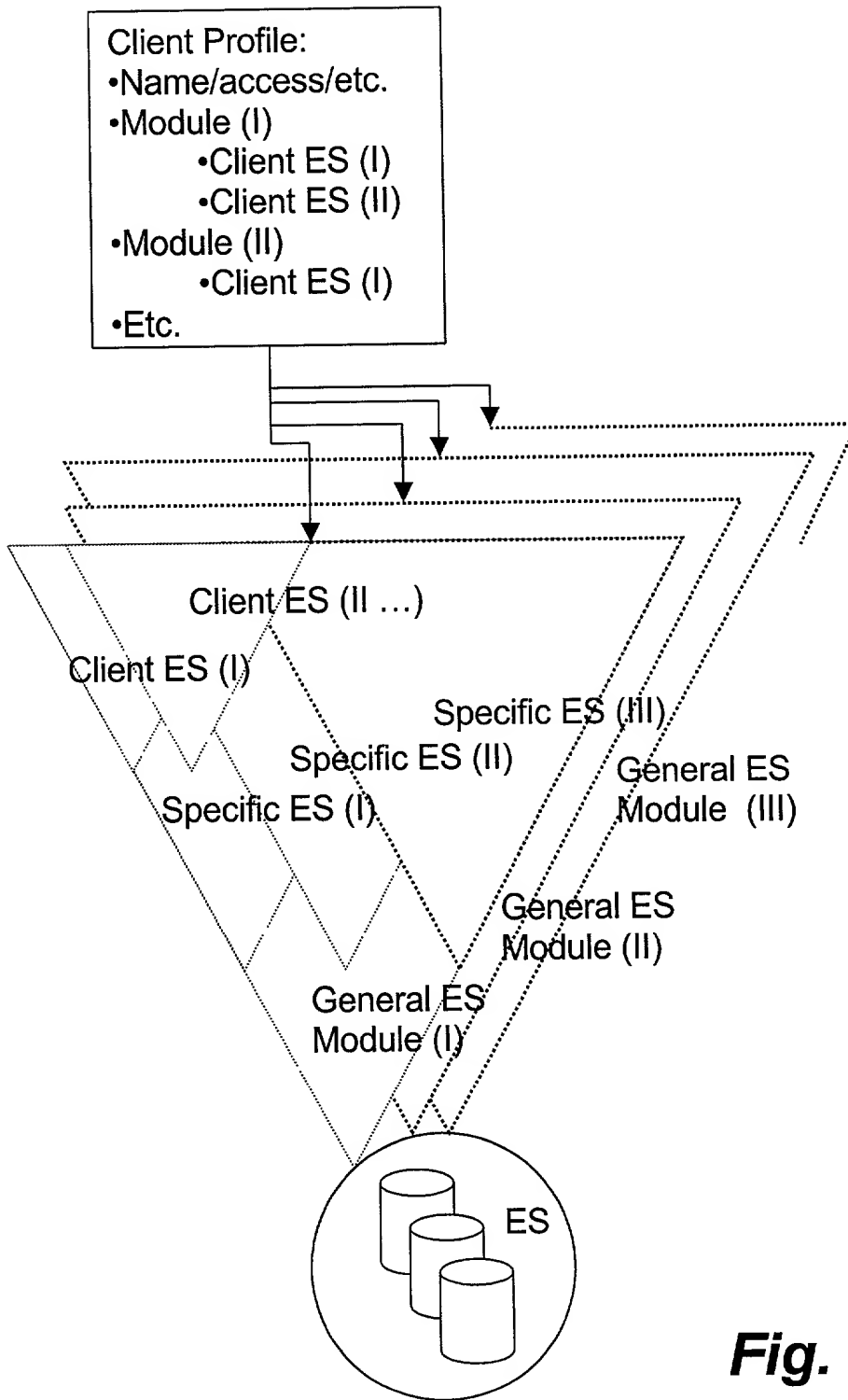


Fig. 1c

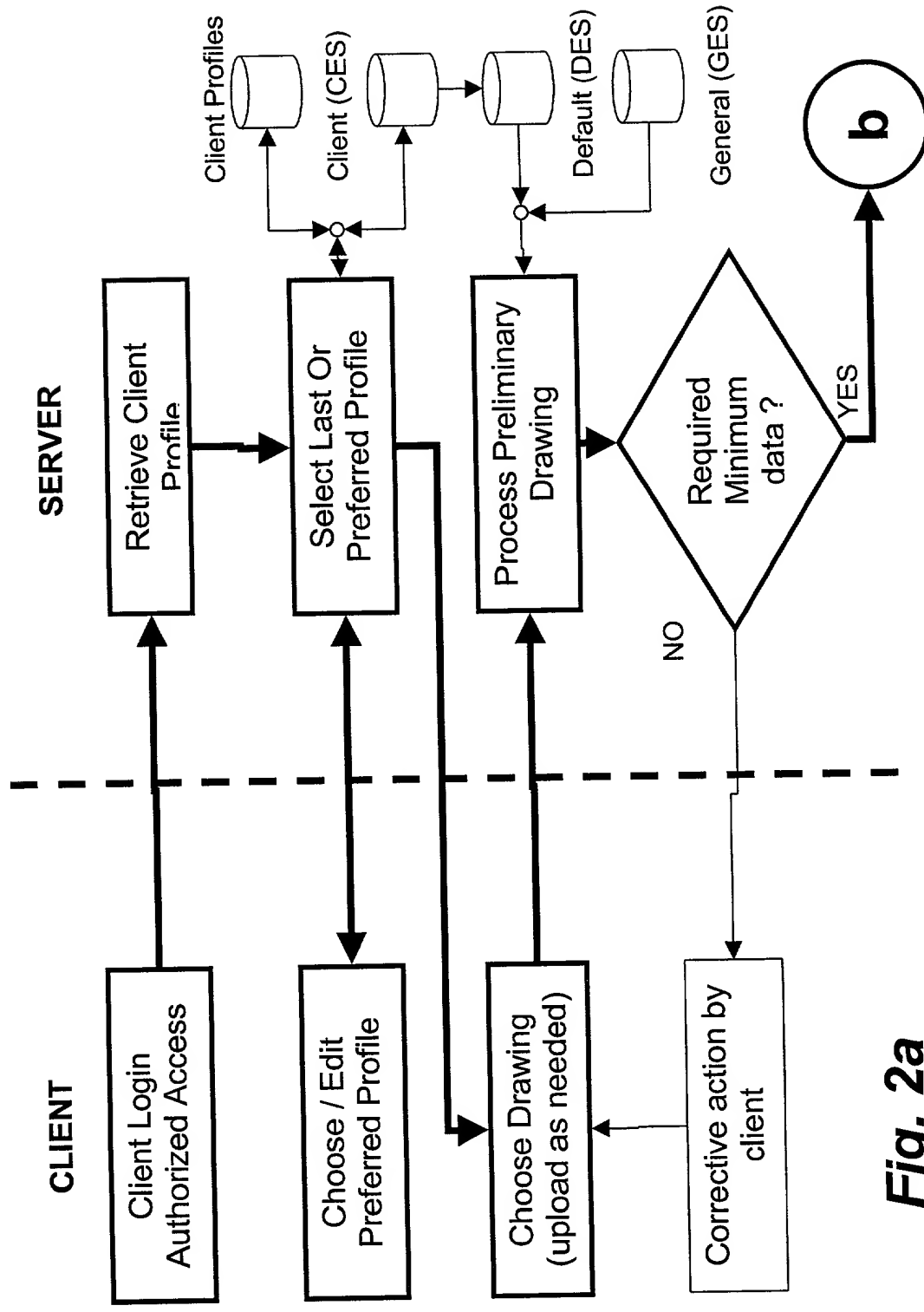
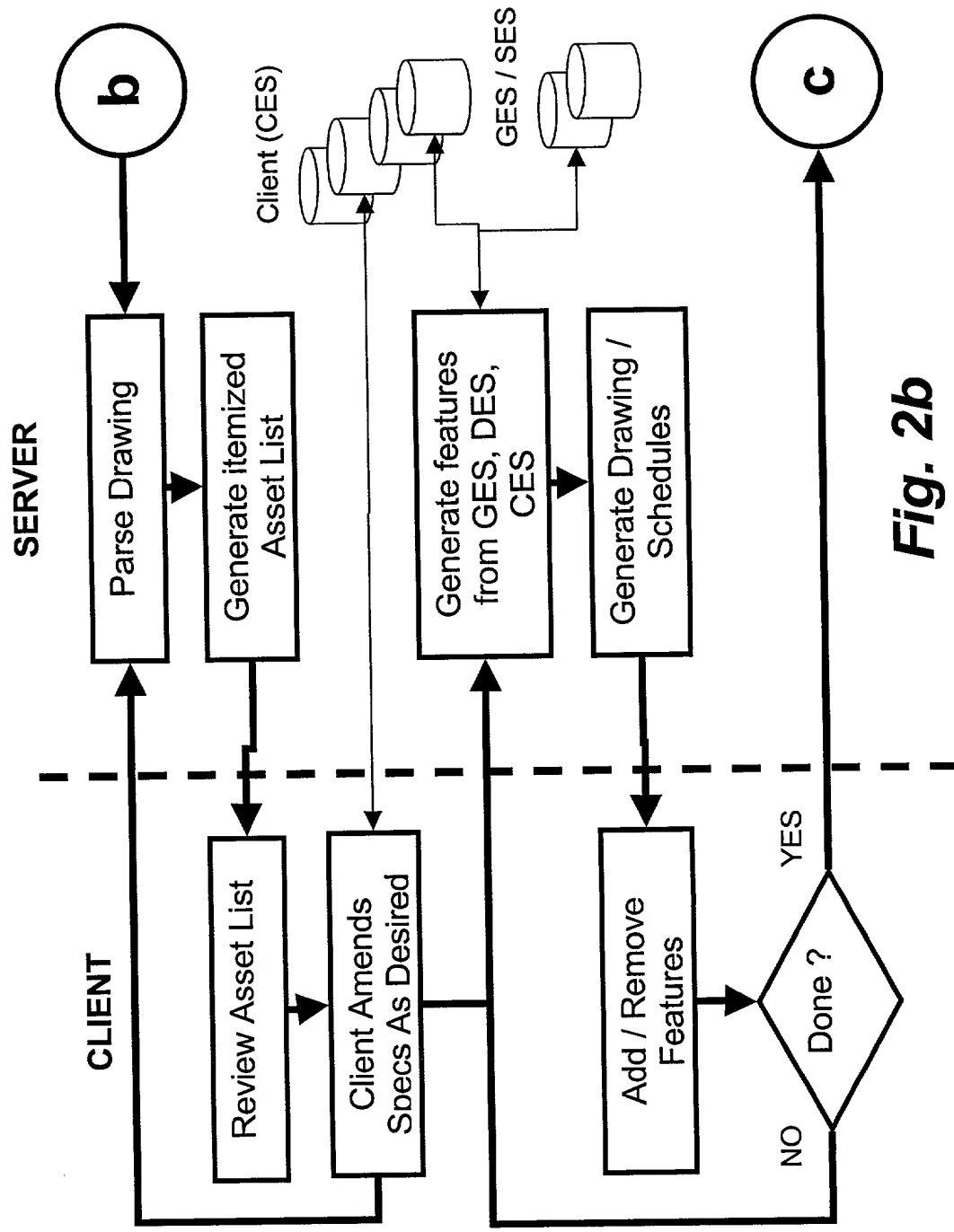


Fig. 2a



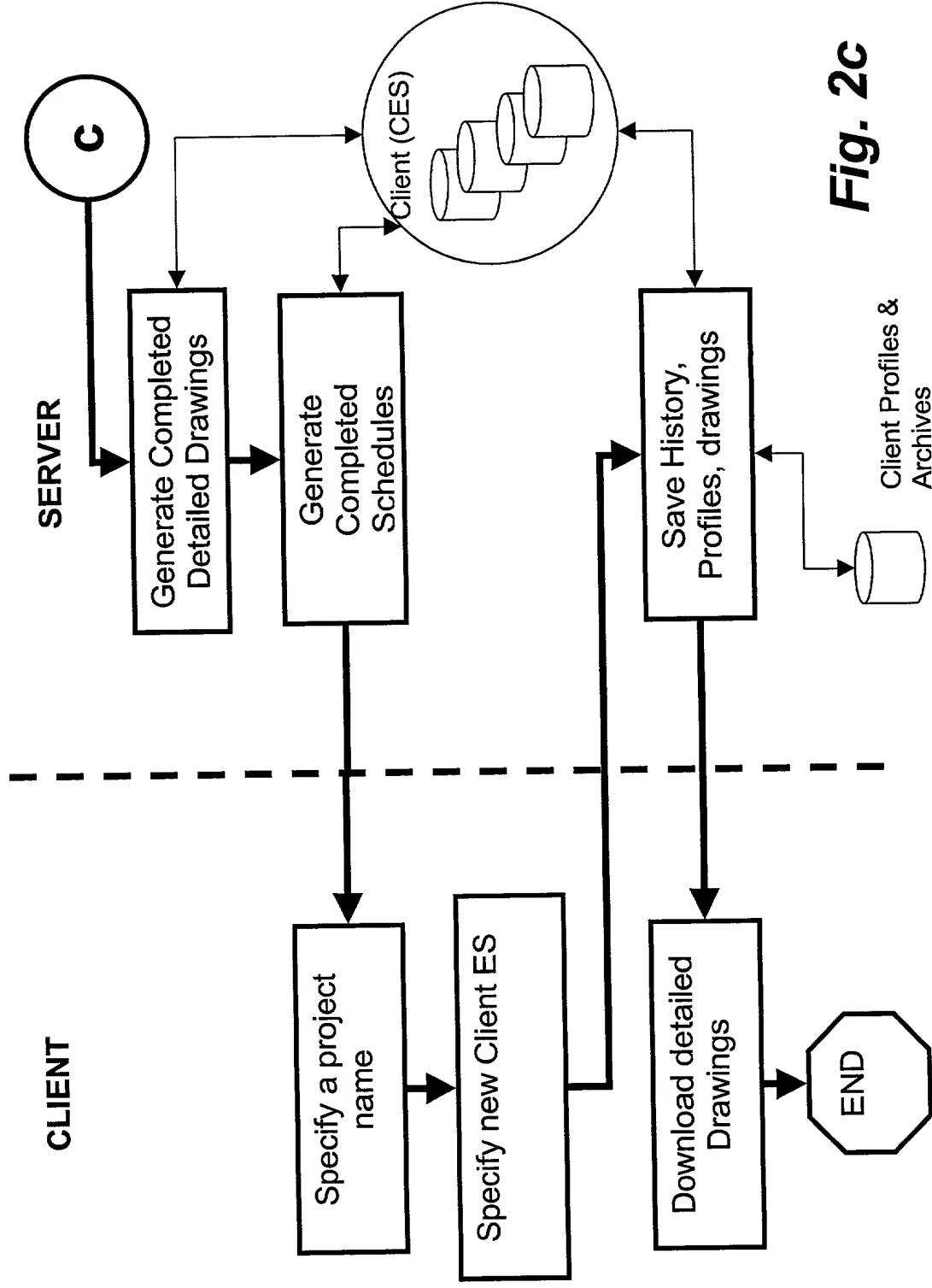


Fig. 2c

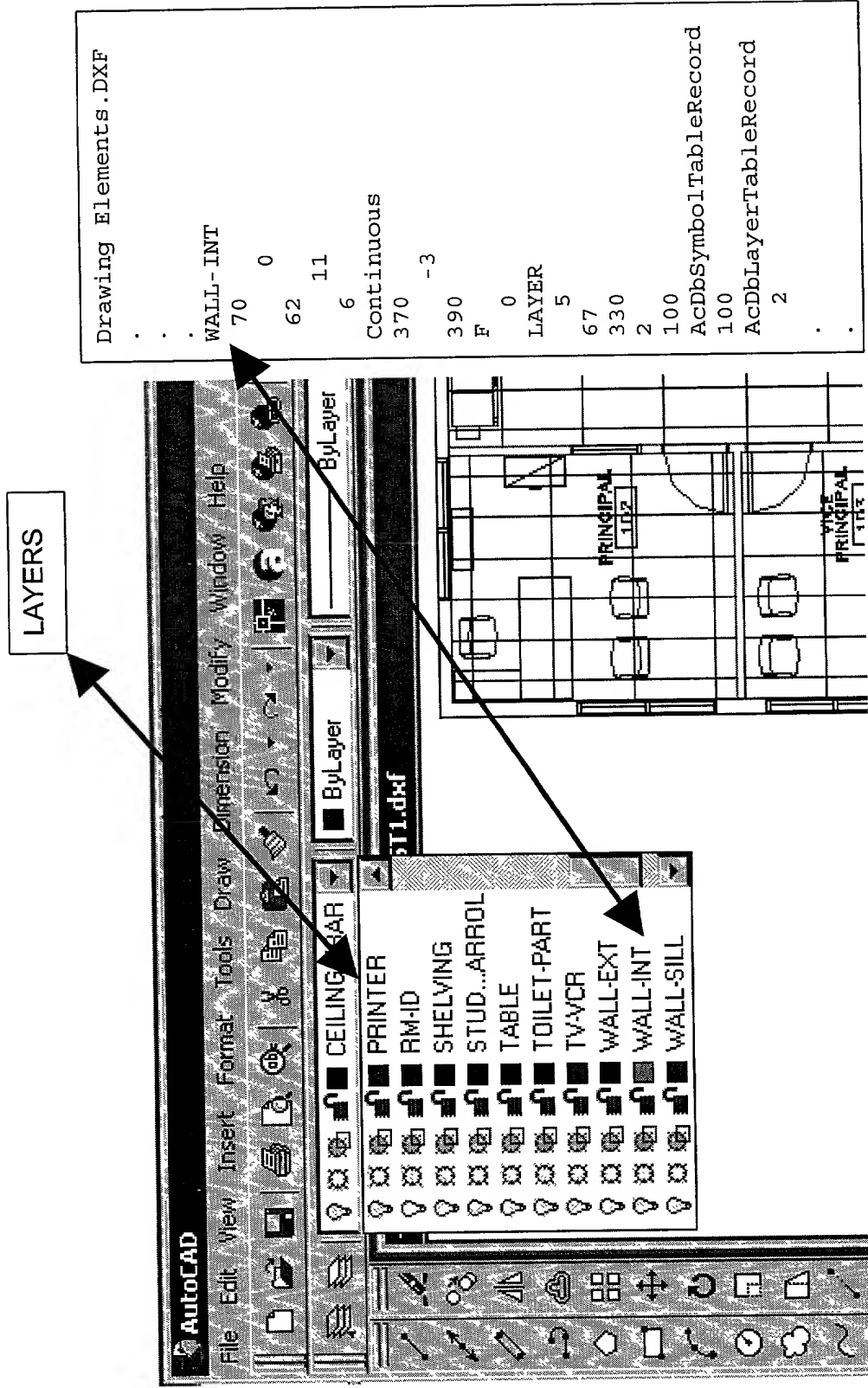
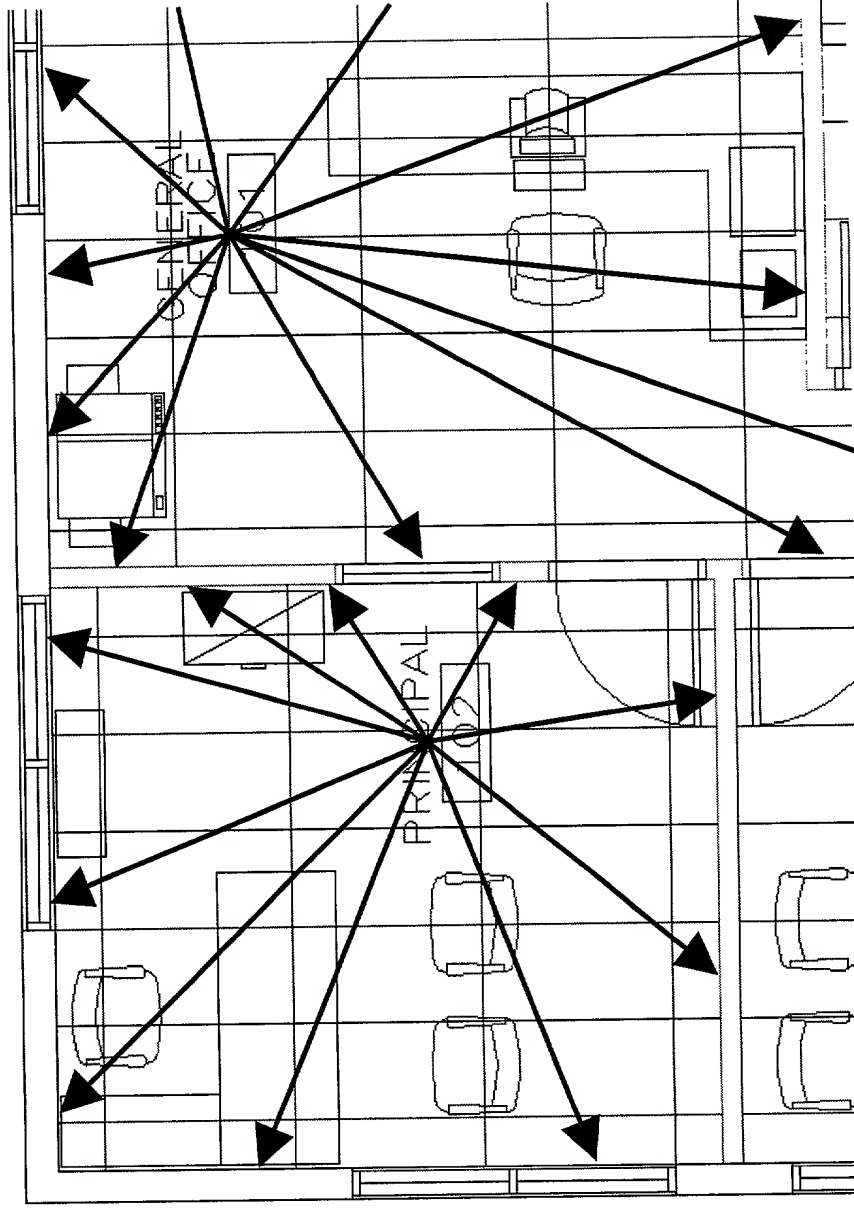


Fig. 3

GENERAL = GOFFICE



PRINCIPAL = EOFFICE

Fig. 4

Room Type	Outlet Type	Outlet Qty	Circuit Rating
CLASSROOM	Duplex <input checked="" type="checkbox"/>	6	15
CORRIDOR	Duplex <input checked="" type="checkbox"/>	6	15
ELECT	Duplex <input checked="" type="checkbox"/>	6	15
EOFFICE	Duplex <input checked="" type="checkbox"/>	6	15
G OFFICE	Duplex <input checked="" type="checkbox"/>	6	15
JANITOR	Duplex <input checked="" type="checkbox"/>	6	15
LIBRARY	Duplex <input checked="" type="checkbox"/>	6	15
LOUNGE	Duplex <input checked="" type="checkbox"/>	6	15
MECH	Duplex <input checked="" type="checkbox"/>	6	15
METER	Duplex <input checked="" type="checkbox"/>	6	15
STORAGE	Duplex <input checked="" type="checkbox"/>	6	15
VESTIBLE	Duplex <input checked="" type="checkbox"/>	6	15
WASHROOM	Duplex <input checked="" type="checkbox"/>	6	15
WORKROOM	Duplex <input checked="" type="checkbox"/>	6	15

Configuration

☐ Configuration
 I want to work on:

☒ Full Floor Plan
 ☐ One room at a time

 Arrange my rules by:

☒ System
 ☐ Room

Duplex

Split

Half-switched

Double duplex

Isolated ground duplex

Duplex above countertop

Split above countertop

Fig. 5

Fig. 6

☐ Rule Choices for System

☐ Auxilliary Systems

☐ Provide electrical outlets according to one of the following rules.

Number of outlets per circuit

☒ Provide one electrical outlet per linear feet of wall.

☐ Provide one electrical outlet per square feet of space in the room

After selecting the number of outlets for the room, the System will automatically locate them adjacent to desks, work stations and equipment. The balance will be evenly distributed on unused walls in the room.

☐ Equipment

☐ Exterior

☐ GFI Outlet

GFI outlets in washrooms - tie to ☐

☐ Countertop Outlets

☐ Computer Outlets

☐ Corridors

☐ Classrooms

standard outlets per classroom

standard outlets per circuit

computer plug at of classroom ☐

standard outlets in corners of classroom

standard outlets goes in the center of wall at of classroom ☐

☐ Electrical outlets adjacent to desks are to be:

Telephone

Television

Fire Alarm

Sound

Electrical Schedule

Electrical Panel Configuration

Label	Panel	Phase	Watts	Volts	Amperes	Breaker	Wiring	Remove
1-NAS-NA	DR	#	723.906	1267.72	0	15	120/0.6	<input type="checkbox"/>
1-NAS-NA	DR	#	763.209	1262.72	0	15	120/0.6	<input type="checkbox"/>
1-NAS-NA	DR	#	811.898	1211.92	0	15	120/0.6	<input type="checkbox"/>
1-NAS-NA	DR	#	688.062	1267.72	0	15	120/0.6	<input type="checkbox"/>
1-NAS-NA	DR	#	669.417	1060.72	0	15	120/0.6	<input type="checkbox"/>
1-NAS-NA	DR	#	685.898	1017.49	0	15	120/0.6	<input type="checkbox"/>

1-1S-25	DR	105	750.898	1125.72	0	15	120/0.6	<input type="checkbox"/>
1-1S-26	DR	107	759.898	1065.72	0	15	120/0.6	<input type="checkbox"/>
1-1S-27	DR	119	824.898	1363.72	0	15	120/0.6	<input type="checkbox"/>
1-1S-28	DR	122	683.898	444.721	0	15	120/0.6	<input type="checkbox"/>
1-1S-28	DR	122	609.898	396.721	0	15	120/0.6	<input type="checkbox"/>

Panel Schedule

Circuit	Watts	Volts	Amperes	Breaker	V/C
1-NAS-NA	X			NA	120V
1-1S-0	X			15	120V
1-1S-1		X		15	120V
1-1S-2			X	15	120V
1-1S-3	X			15	120V
1-1S-4		X		15	120V

1-1S-26			X	15	120V
1-1S-27	X			15	120V
1-1S-28		X		15	120V
Load Totals	150A	150A	135A		

Continue

Legend:

ABBREVIATIONS/ID	DEFINITIONS
DR	Duplex Receptacle

Fig. 7

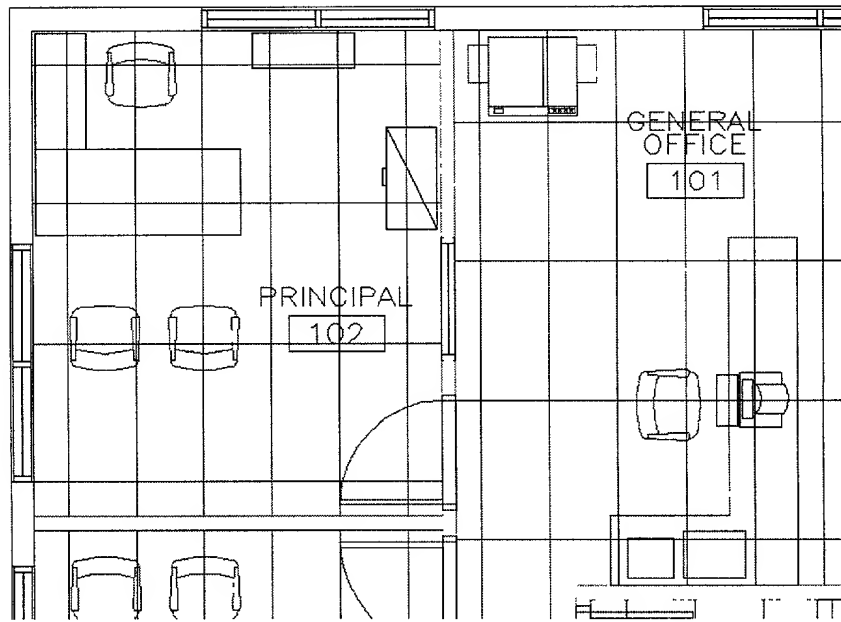


Fig. 8a

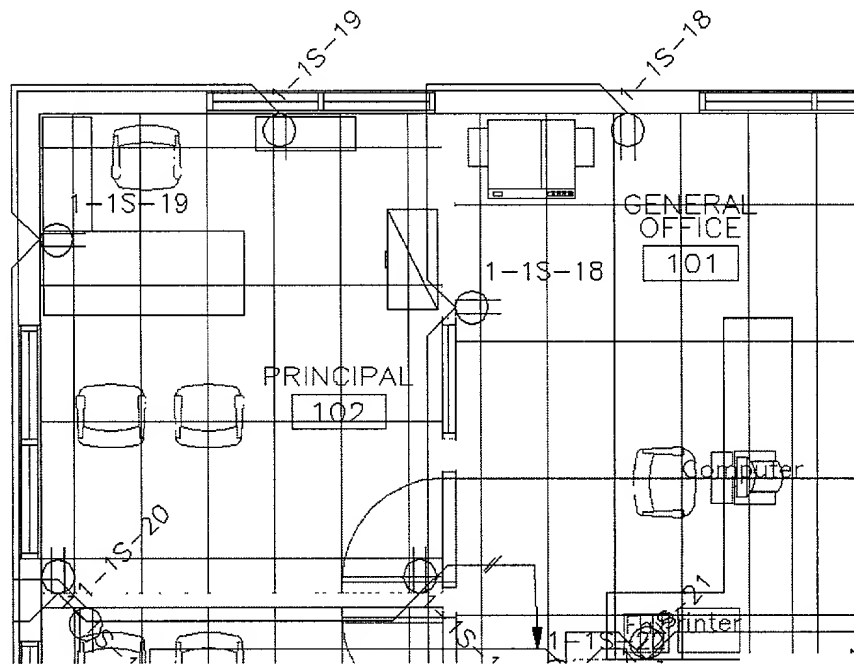


Fig. 8b

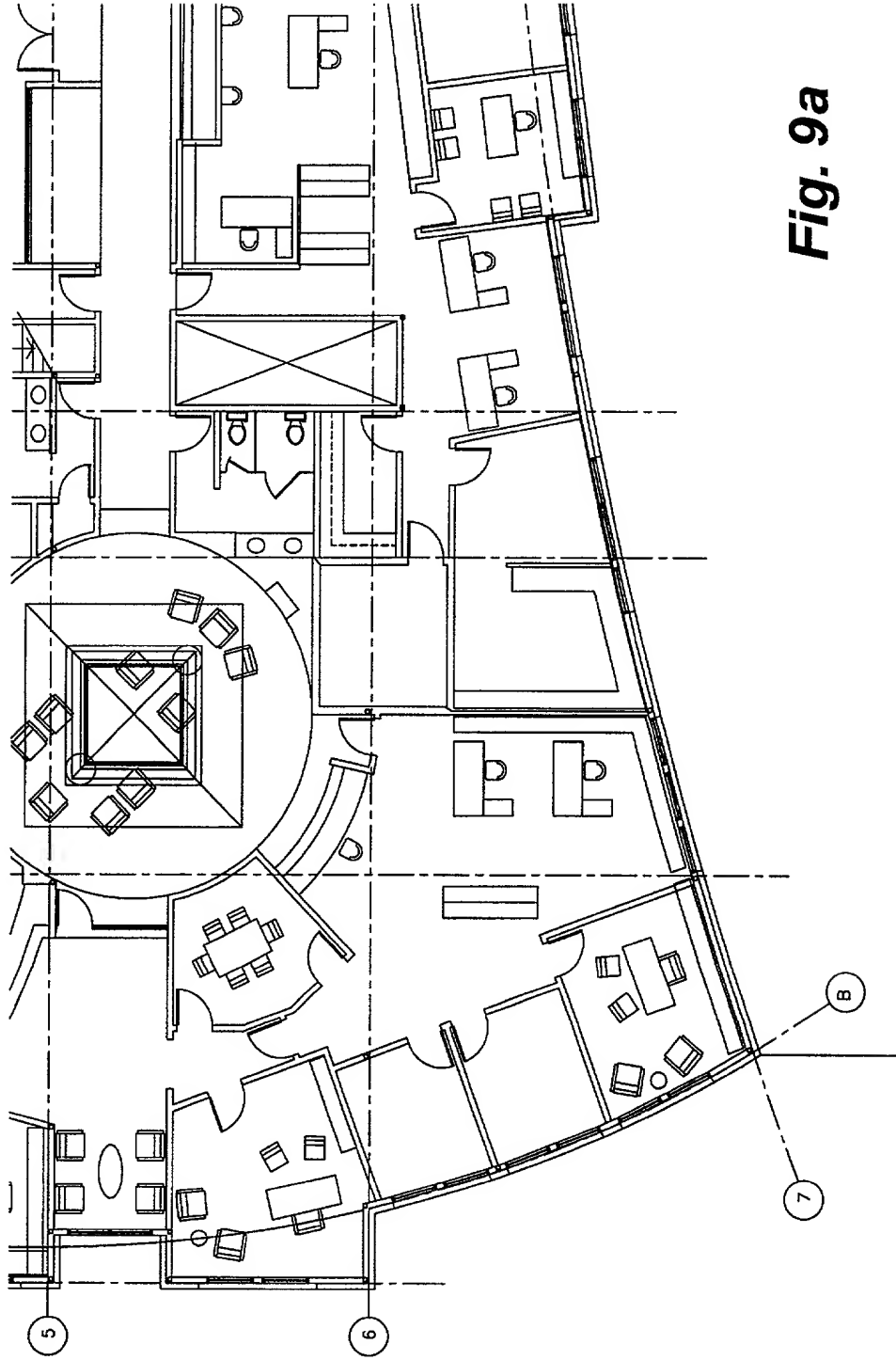
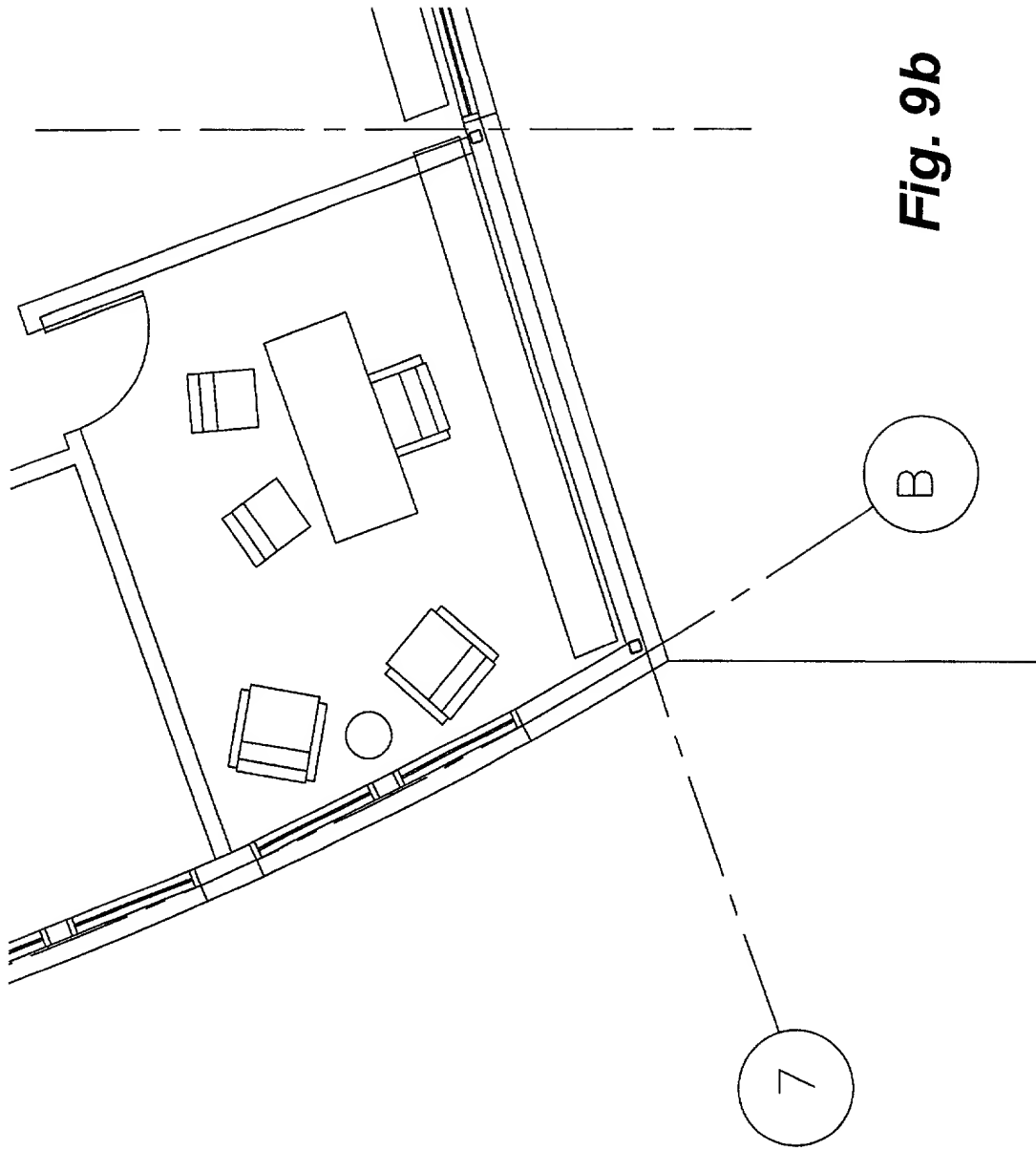


Fig. 9a



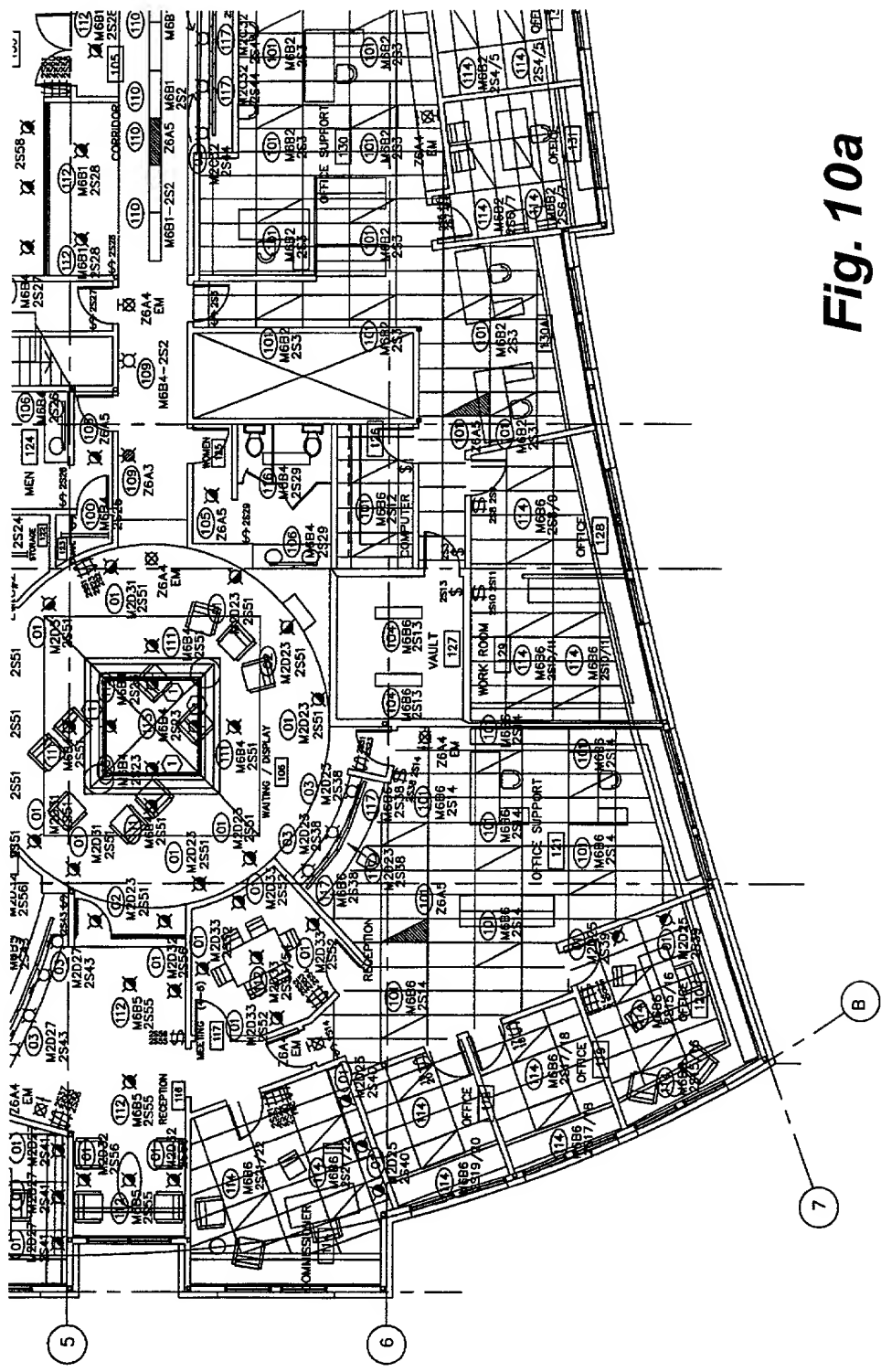


Fig. 10a

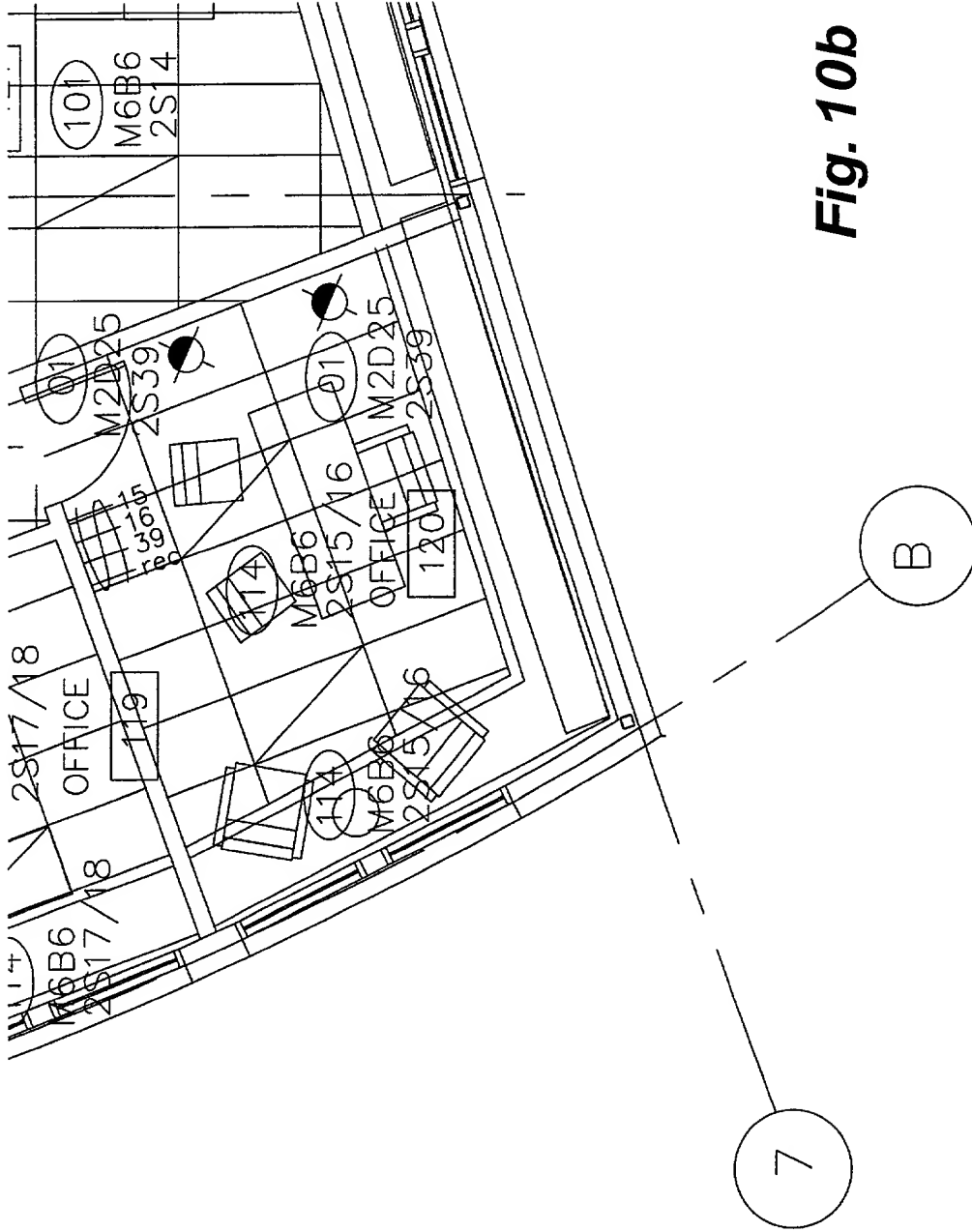


Fig. 10b

Fig. 11a

SECTION 16B - WORK AND MATERIALS

1.0 CONDUIT AND DUCT

- 1.1 Conduit in earth to be rigid metallic conduit with protective coating, rigid PVC or DBI encased in concrete where required.
- 1.2 Interior metal raceways to be of the EMT type except where within 1500mm of the finished floor and are subject to injury where same shall be rigid metallic conduit.
- 1.3 Electrical wiring and cables piercing fire separation walls shall be installed as per Section 3.1.9.3 of the 1998 edition of the Alberta Building Code.

2.0 BRANCH CIRCUIT WIRING

- 2.1 Branch circuit wiring to be copper 600 volt, minimum #12 AWG crosslink. No aluminum wiring will be permitted. Note that whenever wire sizes are not shown on the drawings, it is the Contractor's responsibility to ensure that the conductors satisfy C.E.C. Section 8-102 and the corresponding voltage drop tables.
- 2.2 Interior wiring shall be nonmetallic sheathed cable, metallic flexible cable, metallic conduit or combinations thereof as permitted by the Local Inspection Authority. It is the Contractor's responsibility to determine where NMD-7 may be utilized. No extras will be allowed for failure to do so.
- 2.3 Main feeders and panel feeders to be copper.

3.0 WIRING DEVICES

- 3.1 Lighting switches shall be white in color, spec. grade Decora series. 3-way, 4-way and 2-pole switches shall be of matching type.
- 3.2 Duplex receptacles shall be white in color, spec. grade Decora series, mounted vertically. Isolated ground receptacles to be spec. grade Decora series. Ground fault receptacles to be spec. grade Decora series. Surge suppression receptacle to be Hubbell #HBL5260S.
- 3.3 Range outlets to be Hubbell #9430 c/w #9432 angle cord cap.
- 3.4 Dryer outlets to be Hubbell #9430 c/w #9432 angle cord cap.
- 3.5 Shaver outlets to be Hubbell #G.F.52621.
- 3.6 Device plates shall be smooth white phenolic.
- 3.7 Weatherproof duplex receptacles to be c/w Leviton #4941 weatherproof covers.
- 3.8 All device outlet boxes to be of copper free, aluminum construction. No PVC FSE boxes shall be used.

4.0 MOUNTING HEIGHTS

- 4.1 Verify heights of all devices such as receptacles, switches, bracket lights, etc. with the Architect and/or Engineer before rough-in. In general, mounting heights shall be as follows, unless specified to the contrary on the drawings:
 - .1 Duplex receptacles 450mm
 - .2 Switches 1200mm
 - .3 Thermostats 1550mm
 - .4 Telephone/Television outlets 450mm
 - .5 Fire alarm pull stations 1500mm
 - .6 Fire alarm bells 300mm below ceiling

Fig. 11b

DIVISION 16 - ELECTRICAL

SECTION 16A - GENERAL REQUIREMENTS

1.0 GENERAL

- 1.1 The General Conditions and Instructions to Bidders as set forth in the general contract specifications and all addenda thereto shall apply to, and govern all portions of the electrical work.
- 1.2 Points not specifically mentioned shall be in strict accordance with the Canadian Electrical Code and regulations of the Electrical Inspection Department from which the permit was obtained. The latest revisions and/or amendments to the Code, with applicable date restrictions, shall also govern work on this contract.
- 1.3 It is the intent that these drawings and specifications provide for an electrical installation complete and in operating condition. The Contractor shall be responsible for supplying and installing all material necessary to accomplish this, except where specifically noted that such work or material is not included.

2.0 CODES, PERMITS AND INSPECTIONS

- 2.1 The installation shall comply with the requirements of the current edition of the Canadian Electrical Code and the regulations of the Electrical Inspection Department having jurisdiction.
- 2.2 Electrical trade shall obtain all electrical permits required and after completion of the work shall furnish to the Architect a Certificate of Final Inspection and Approval from the Inspection Department. Electrical trade shall take out all permits at the beginning of the work.
- 2.3 The Electrical Contractor shall specifically note that he shall submit two (2) sets of drawings to the Electrical Inspection Department and shall include all costs for prints, survey, etc. in this electrical tender.
- 2.4 The Electrical Contractor shall include in his electrical tender Edmonton Power's Plan Review charges.

3.0 STANDARDS OF WORKMANSHIP AND MATERIAL

- 3.1 All material supplied by the Contractor shall be new and of the quality specified. All such material shall conform to the standards of the Canadian Standards Association, and shall bear the necessary CSA label. For any material not CSA approved, this Contractor shall obtain the approval of the Local Inspection Authority, and shall bear all inspection charges levied and any modification costs required.
- 3.2 All phases of the electrical installation shall be executed in a satisfactory, workmanlike manner, and shall present a neat mechanical appearance when completed. Work not considered satisfactory to the Engineer shall be corrected at the Contractor's expense.

Fig. 12a

M E C H A N I C A L S P E C I F I C A T I O N S

1.0 INTENT

1.1 IT IS TO PROVIDE FOR A COMPLETELY AND FULLY OPERATING MECHANICAL SYSTEM IN COMPLETE ACCORD WITH ALL APPLICABLE CODE AND ACCEPTED STANDARDS. THE SPECIFICATION MAY NOT COVER EACH AND EVERY ITEM REQUIRED FOR THE COMPLETE MECHANICAL INSTALLATION, THEREFORE, THE MECHANICAL CONTRACTOR SHALL MAKE HIS OWN PROVISIONS FOR ALL LABOR MATERIAL AND EQUIPMENT DEEMED NECESSARY TO COMPLETE THE MECHANICAL SYSTEM.

2.0 CERTIFICATES, FEES, ETC.

2.1 GIVE ALL NOTICES, OBTAIN ALL PERMITS AND PAY ALL FEES SO THAT THE WORK SPECIFIED HEREIN MAY BE CARRIED OUT. HE SHALL FURNISH ANY CERTIFICATES, AT THE PRIME CONSULTANT'S REQUEST, AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS FOR ALL AUTHORITIES HAVING JURISDICTION.

3.0 CUTTING AND PATCHING

3.1 THE MECHANICAL CONTRACTOR SHALL CONFER WITH THE GENERAL CONTRACTOR IN REGARD TO THIS WORK AND SHALL GIVE LOCATIONS FOR ALL HOLES FOR PIPES, DUCTS, ETC., AND PROVIDE SLEEVES REQUIRED TO EXECUTE THE MECHANICAL INSTALLATION.

4.0 EXCAVATION AND BACKFILLING

4.1 ALL EXCAVATION SHALL BE DONE BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BACKFILL WITH SAND OR OTHER APPROVED MATERIAL TO A MINIMUM OF 12" OVER ALL PIPING OR AS NECESSARY TO PROTECT HIS WORK. THE GENERAL CONTRACTOR SHALL COMPLETE THE REMAINDER OF ALL BACKFILLING REQUIRED.

5.0 TESTING

5.1 TEST ALL EQUIPMENT AND MATERIAL WHERE REQUIRED BY SPECIFICATIONS OF AUTHORITY HAVING JURISDICTION TO DEMONSTRATE ITS' PROPER OPERATION TO THE OWNER'S REPRESENTATIVE. TEST PROCEDURES SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF ASME, ASHRAE AND OTHER RECOGNIZED TEST REQUIREMENTS AS FAR AS FIELD CONDITIONS PERMIT.

5.2 PERFORM THE FOLLOWING TESTS AND UPON COMPLETION OF THE MECHANICAL INSTALLATION, TURN OVER TO THE OWNER THROUGH THE INSPECTOR ON SITE, A CERTIFICATION OF THE FOLLOWING TESTS WITH THE DETAILED DATA AS REQUIRED BY EACH. EACH TEST SHALL BE ITEMIZED AS TO TIME THE TEST WAS PERFORMED AND PERSONNEL RESPONSIBLE FOR A PERIOD OF EIGHT (8) HOURS AND PRESSURE MAINTAINED WITH NO APPRECIABLE PRESSURE DROP. WHERE LEAKAGE OCCURS, REPAIRS SHALL BE MADE AND ENTIRE SYSTEM RE-TESTED. ALL TESTS ARE TO BE MADE BEFORE BACKFILLING AND/OR FURRING:

- .1 DOMESTIC WATER PIPING SHALL BE TESTED AT 120 PSI WATER PRESSURE MEASURED AT THE LOW POINT OF THE SYSTEM.

Fig. 12b

ARCHITECTURAL DOCUMENT STANDARDS & REQUIREMENTS. ALL EXHAUST FANS FRACTIONAL HP 1P-120V MOTOR.

13.3 EXHAUST FANS: MAKES, MODELS, CFM'S, STATIC PRESSURES & SONES ON DRAWINGS. ALL UNITS FHP, 120V/1Ø/2W & EACH UNIT TO BE SUPPLIED LUTRON 1500 WATT SLIDE ACTION SPEED CONTROLLER. ALTERNATE UNITS TO BE FULLY EQUIVALENT WITH SPECIFIED UNIT CFM'S, STATIC PRESSURES, SONE LEVELS AS MINIMUM REQUIREMENTS.

13.4 ELECTRIC HEATERS: MAKES, MODELS, KW RATINGS ON DRAWINGS. ALL UNITS 120V/1Ø/2W FOR 1.5 KW & 208V/1Ø/3W FOR 3KW & BE C/W INTEGRAL T'STAT.

13.5 R-1 RETURN AIR GRILLES: TITUS CORE 50 C/W 30MM BORDER AND INTEGRAL OPPOSED BLADE BALANCING DAMPER.

PLUMBING FIXTURE SPECIFICATIONS

NON-FREEZE HOSEBIB: CHROME PLATED, KEY LOCKING, SURFACE MOUNTED C/W VALVE AT MINIMUM 300MM INSIDE BUILDING, CRAME OR EMCO.

WC-1 WATER CLOSET

CRANE RADCLIFFE C/W ELONGATED BOWL, INSULATED TANK & OPEN FRONT SEAT & BUMPER. SEAT & BUMPER EQUAL TO OLSONITE 95CCSS.

LAV-1 SINGLE COMPARTMENT VANITY MOUNTED SINK

BOWL: CRANE CORONETTE SELF RIMMING, OVAL ENAMELED STEEL SINGLE COMPARTMENT LAVATORY C/W GASKET & 4" DRILLINGS.

TRIM: CHICAGO FAUCET MODEL 1895 GOOSENECK FAUCET WITH 2-3/4" LEVER HANDLES, CHROME FINISH, PLUG & CHAIN.

SK-1 SINGLE COMPARTMENT STAINLESS STEEL SINK

BOWL: 18"x18.5"x7" O.D., 16"x14"x7" BOWL DIMENSIONS, SELF RIMMING, SINGLE COMPARTMENT WITH FAUCET LEDGE. MADE OF 20 GA. TYPE 316 STAINLESS STEEL. ARCHITECTURAL METAL INDUSTRIES MODEL 1009 C/W 4 HOLE DRILLING.

TRIM: CHICAGO FAUCET MODEL 1102 SWING SPOUT & 2-3/4" LEVER HANDLES & VEGETABLE SPRAY. INCLUDE SAN STUBOUT FOR DISHWASHER.

SK-2 MOP SINK & TRIM

BOWL: 24" X 24" MOULDED PLASTIC, FLOOR MTD, SELF RIMMING, SINGLE COMPARTMENT JANITORS SINK OF MOULDED PLASTIC CONSTRUCTION. FIAT MODEL MSB 2424 C/W FIAT HW & CW SUPPLIES, VACUUM BREAKER, MOP HANGER.

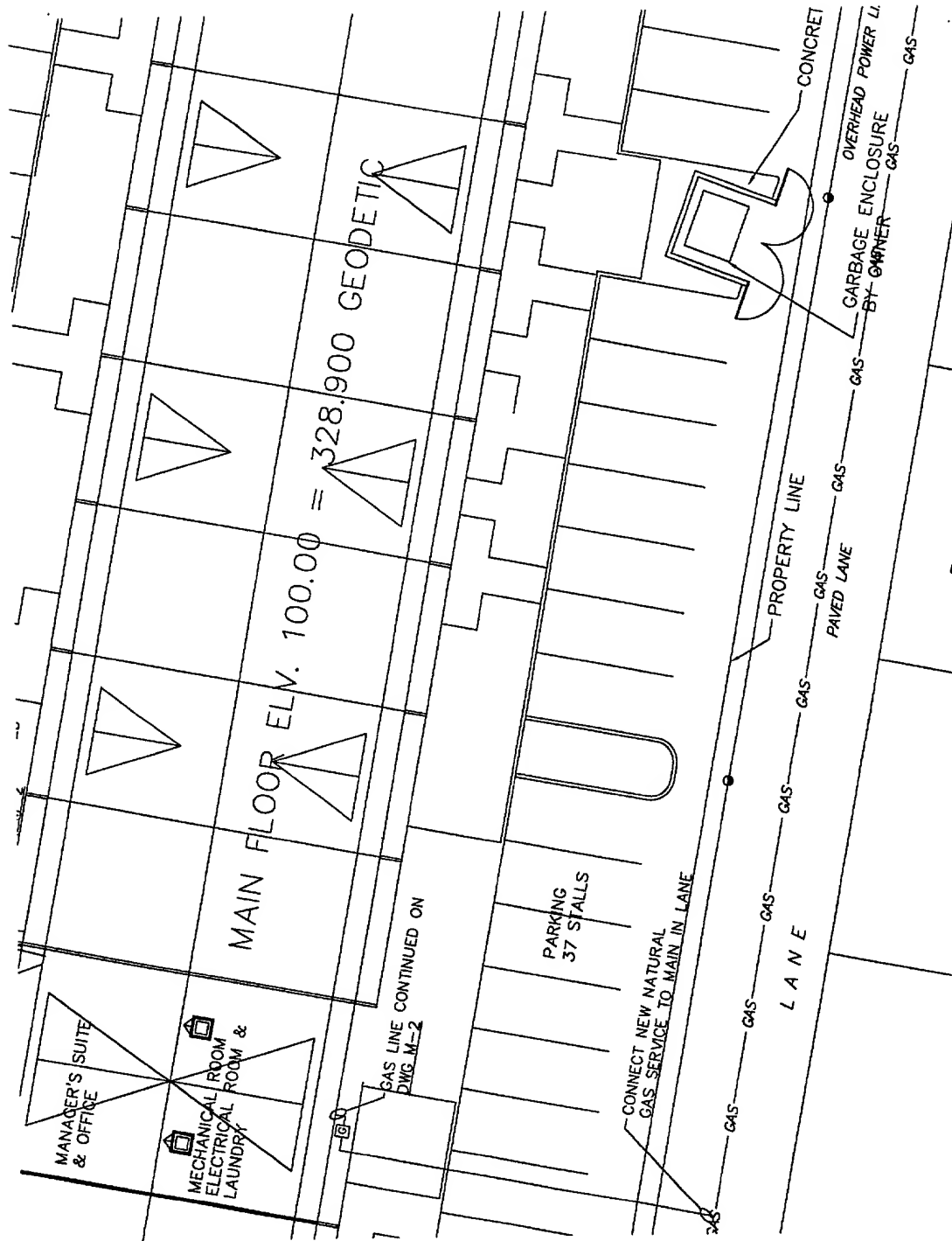


Fig. 13b